

## **RESPONSE:**

### **I. Status of the Application:**

Following the above amendments, claims 1 – 18 and 20 – 25 are pending.

In the January 30, 2006 Office Action (the “Office Action”): (1) the specification was objected to under Section 112 for failing to provide antecedent basis for claims 3, 9 and 14 (Office Action page 2, point 1); (2) claims 1 – 3, 7 – 9, 14, 16, 17 and 22 were rejected under Section 102(e) as anticipated by Master et al. U.S. Publication No. 2002/0138716 (hereinafter “Master”) (Office Action points 1-12); (3) claims 4 – 6 and 18 – 21 were rejected under Section 103(a) as obvious over Master et al. in view of Fallside et al. U.S. Patent No. 6,326,806 (hereinafter “Fallside”); and (4) claims 10 – 13 were rejected under Section 103(a) as obvious over Master et al. in view of Trimberger et al. U.S. Patent No. 5,646,545 (hereinafter “Trimberger”).

Upon entry of this amendment, which amends claims 1, 7 – 18, 20 – 22, cancels claim 19, and adds new claims 23 – 25, claims 1 – 18 and 20 – 22 remain pending, and claims 22 – 25 will be pending. Each of the independent claims 1, 9 and 14 includes various limitations not disclosed by nor made obvious in view of the prior art.

Applicants respectfully traverse the rejection of claims 1 – 22 under Sections 102 and 103. Applicants respectfully request reconsideration of the pending claims in view of the foregoing amendments and the following remarks.

### **II. The Objection to the Specification under 35 USC §112 Should be Withdrawn:**

The specification was objected to as failing to provide proper antecedent basis for the claimed subject matter. Applicants have amended the specification to include the language of claims 1 and 9, as amended. Applicants submit no new matter has been added. Accordingly, applicants submit the specification provides proper antecedent basis for the claims.

### **III. The Rejections under 35 USC §102(b) and §103 Should Also be Withdrawn:**

Independent claims 1, 9 and 14 were rejected under 35USC §102(e) as being anticipated by Master. Applicants submit that Master fails to disclose or suggest every

element of these independent claims 1, 9 and 14, as amended. First, Master does not disclose or suggest a *common* core processor architecture that is *configurable* (in different, first and second nodes) to be a control node for controlling the interconnecting of the computational elements and also configurable to be a programmable scalar node (PSN) for performance computational applications (claims 1 and 14, or, for claim 9, configurable to be a RISC processor). Second, Master does not disclose and does not suggest that such a core processor would be coupled to a defined, *uniform interface*, referred to in the specification as a “node wrapper”, which provides a uniform communication interface to and from all nodes, including the control node and the PSN. Third, Master fails to disclose or suggest that the first processing node is configured as the control node based on a first configuration command, and the second processing node is configured as the PSN node based on a second configuration command.

Master discloses a controller 120 and computational units 200, and the cited paragraph 29 in Master does not disclose any such common architectures, respectively, for a core processor and for a uniform interface to the interconnection network. Computational units 200 may include the same components. However, Master does not disclose or suggest that controller 120 includes the same core processor based on a common architecture as computational units 200. Rather, controller 120 includes matrices 150A and 105B. See *Master*, par. 28. Also, computational units 200 include computational elements 250. See *Master*, par. 29. Accordingly, Master fails to disclose or suggest a first processing node and a second processing node with each having a core processor based on a common architecture which is configurable into a control node and a programmable scalar node. As claimed, the control node controls the interconnecting of the computational elements and the PSN node is configured to perform computational applications. In addition, Master fails to disclose or suggest the claimed first and second interfaces, which also have a common architecture, and which provide a uniform interface to these various nodes.

Similarly, claim 9 recites first and second nodes each having a core processor having the same, common circuit architecture and configurable into a controller node and configurable into a RISC processor. Claim 9 also includes the feature of the common interface structure for communication. These features, as mentioned above, are also not disclosed in any of the cited references.

Accordingly, Master does not disclose and does not suggest these claimed features of the present invention.

Similarly, neither Fallside nor Trimberger disclose or suggest these claimed features of the present invention, namely, the common core processor architecture used in different nodes and separately configurable for separate purposes, and the common interface architecture for communication with the interconnection network. Rather, Fallside discloses reconfiguration of an FPGA through a communication channel. Trimberger discloses reconfiguration of an FPGA to create time multiplexing. In addition, Fallside and Trimberger were not cited in the Office Action as pertinent to any of the independent claims, which are therefore allowable over both of these references.

Also, the first processing node may be configured as a control node or the PSN node based on a first configuration command and a second processing node can be configured as the control node or PSN node based on a second configuration command. The rejection cites Trimberger as disclosing a state register. Trimberger discloses a programmable logic device that includes configurable logic blocks. However, nowhere in Trimberger is it disclosed or suggested that a first and second processing node have a core processor based on a common architecture that is configurable to be a control node or a PSN node based on configuration commands. Applicants submit that Master, Fallside and Trimberger, either alone or in combination, do not disclose or suggest the above claimed elements.

In addition, there is no motivation to combine these references. The mere fact that the references could be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990). In addition, identification of any individual part claimed is insufficient to defeat patentability of the whole claimed invention. See *In re Kotzab*, 217 F.3d 1365 (Fed. Cir. 2000). Accordingly, no *prima facie* showing of potential anticipation or obviousness has been made, and any assertions to the contrary have been clearly rebutted. *In re Rouffet*, 149 F.3d 1350 (Fed. Cir. 1998); *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990). The rejection of independent claims 1, 9 and 14 as anticipated under Section 102 or as obvious under Section 103, therefore, should be withdrawn.

Accordingly, applicants respectfully request withdrawal of the rejections of claims 1, 9 and 14. In addition, because the remaining dependent claims incorporate by reference all of the limitations of the corresponding independent claims, all of the dependent claims are also allowable over the cited references.

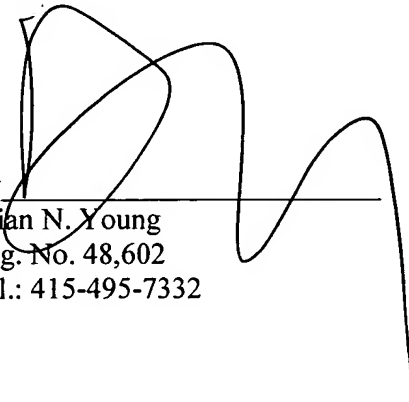
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Applicant respectfully submits that the present claims are in condition for allowance and an early Notice of Allowance is earnestly sought. The undersigned may be contacted at the telephone number below at the Examiner's convenience if it would help in the prosecution of this matter.

Respectfully submitted,

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Date

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